

Shown with optional backlight - loop powered

The **BA627E-SS** set point station enables the current flowing in a 4/20mA loop to be manually adjusted from within a process area via the front panel push buttons. Housed in a rugged stainless steel enclosure with a toughened glass window the BA627E-SS is ideal for installations in harsh industrial and marine environments and where the front of the instrument is likely to be impacted.

**Main application** of the BA627E-SS is the manual adjustment of a 4/20mA plant parameter such as a controller set point from within a process area. For example, as the remote set point generator for a speed controller or for positioning a 4/20mA actuator or valve. The BA627E-SS incorporates a five digit display plus a bargraph that may be calibrated to show the engineering units represented by the 4/20mA output current, enabling an operator to easily set the process variable to the required value.

**Up to five pre-set output values** may be rapidly selected using the instrument's front panel push buttons for applications where the same output values are repeatedly required. To minimise plant disturbance when the output is adjusted or switched between pre-sets, the maximum rate of output current change may be defined. The 4/20mA output range may also be restricted so that operators can only adjust the plant variable within safe limits.

The **bold 12.7mm** high liquid crystal display provides maximum contrast and has a very wide viewing angle, allowing the BA627E-SS set point station display to be read easily in most lighting conditions over a wide temperature range. The five digits, with four decimal points and a negative sign may be configured to display any variable represented by the 4/20mA output current between -99999 and 99999.

**Engineering units** represented by the 4/20mA output current may be shown on the slide-in scale card which is viewed through the window on the right hand side of the display. If the units are specified when the BA627E-SS is ordered a printed scale card will be fitted. If units are not specified, a blank card will be fitted which can easily be marked and installed on-site without dismantling the set point station enclosure or removing it from the panel.

**Display backlighting** which may be loop or separately powered is available as a factory fitted option. It provides green background illumination allowing the display to be read at night or in poorly illuminated areas. When powered from the 4/20mA loop the minimum operating voltage of the BA627E-SS is increased. Powering from a separate supply produces a brighter backlight but requires additional field wiring.

**An external quadrature encoder** may be directly connected to the BA627E-SS set point station to provide analogue control of the output current. Most three wire devices, such as the BEKA BA490 panel mounting rotary encoder may be located up to 1m from the BA627E-SS.

**Reliability is ensured** by component conformal coating, protection from incorrect connection and radio frequency interference. The set point station has been subjected to vibration testing and is supported by a three year guarantee.

**For applications in hazardous areas** the BA427E-SS, which has similar features as the BA627E-SS, has IECEx and ATEX certification allowing installation in most gas and dust hazardous areas. It may also be installed in Ex e, Ex n, Ex p and Ex t panel enclosures without invalidating the enclosure certification.

# BA627E-SS

**Rugged 4/20mA manual set point station**  
[set point generator]

*General purpose for use in harsh and marine environments*

- ◆ **Loop powered**
- ◆ **Rugged IP66 stainless steel enclosure.**
- ◆ **5 digit 12.7mm high display & 31 segment bargraph.**
- ◆ **Optional backlight & BA490 external rotary encoder.**
- ◆ **Easy on-site scale card installation.**
- ◆ **3 year guarantee**

[www.beka.co.uk/ba627e-ss](http://www.beka.co.uk/ba627e-ss)

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## SPECIFICATION

### Output

Current 3.0 to 22.0mA

Resistance Greater than 1MΩ

### Power supply

Voltage 6.1 to 30V  
10 to 30V when optional backlight is loop powered.

### Accuracy

Control resolution 1 least significant digit of the display, or 0.3μA whichever is greater.

Temperature effect Less than 2μA/°C

### Display

Type Liquid crystal, non-multiplexed 5 digit 12.7mm high with 31 segment bargraph.

Zero Adjustable between 0 & ±99999 with 4mA output.

Span Adjustable between 0 & ±99999 with 20mA output.

Decimal point 1 of 4 positions or absent  
Zero blanking Blanked apart from 0 in front of decimal point.

Direction Display may increase or decrease with increasing 4/20mA output.

### Push buttons

⏪ and ⏩ or ⏮ or ⏭

(Function in operating mode)  
Scrolls output current down or up  
Two handed activation prevents output current being accidentally adjusted if ⏮ or ⏭ button or external encoder are inadvertently operated.  
Can be set to single handed operation in configuration menu.

⏮ Shows display calibration with 4mA output.

⏭ Shows display calibration with 20mA output.

⏪ Displays output current in mA, as a % of span or provides access to pre-set outputs.

### Environmental

Operating temp -40 to +70°C  
Storage temp -40 to +85°C  
Humidity to 95% at 40°C noncondensing  
Vibration Report available

Enclosure Front IP66, rear IP20  
Ingress protection Stainless steel BS 3146-2:1977  
Material ANC4B (316).

EMC Complies with 2004/108/EC

### Mechanical

Terminals Screw clamp for 0.5 to 1.5mm<sup>2</sup> cable, removable.

Weight 0.85kg

### Accessories

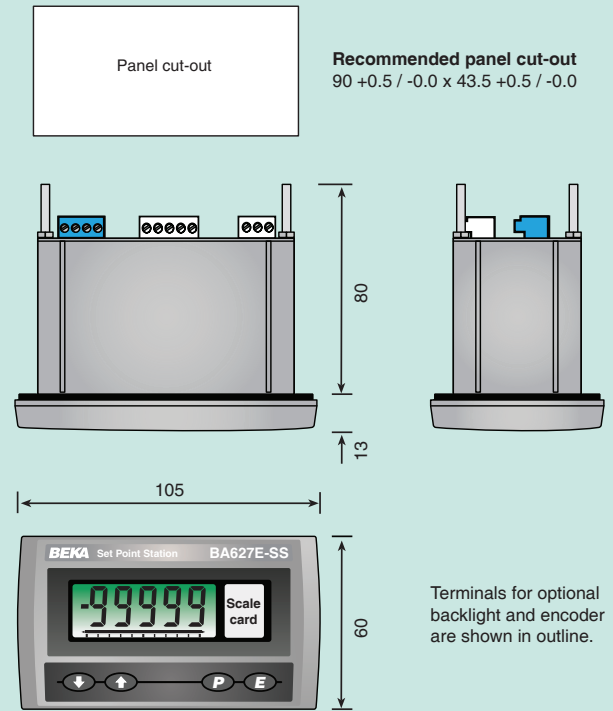
Backlight Green, may be loop or separately powered.  
Loop powered Set point station + backlight supply 10 to 30V.

Separately powered 9 to 30V at 22mA

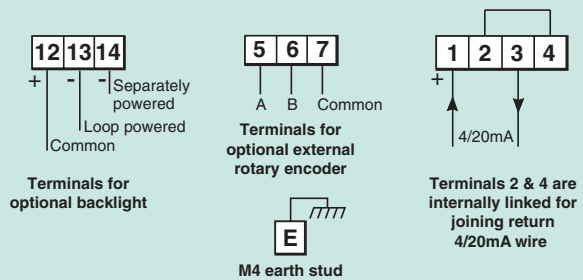
Printed scale card Blank card fitted to each Set Point Station, can be supplied typeset with specified engineering units.

Tag legend Specified tag number or application laser etched onto rear of the instrument.

## DIMENSIONS (mm)



## TERMINAL CONNECTIONS



External encoder BA490 panel mounting rotary quadrature encoder which may be located up to 1m away from the BA627E-SS. See separate datasheet.

BA495 rear cover and sealing kit Provides impact and IP66 protection for rear of instrument. #

# See accessory datasheet for details

## HOW TO ORDER

Model number

Display at:  
4.000mA  
20.000mA

Please specify

BA627E-SS

XXXXX } Include position of decimal  
XXXXX } point & sign if negative \*

### Accessories

Display backlight  
Scale card

Please specify if required

Backlight  
Legend required - No Charge if ordered with Set Point Station.

Tag  
External rotary encoder  
Rear cover and sealing kit

Legend required  
BA490  
BA495

\* Will be set to display 0.00 at 4mA output and 100.00 at 20mA output if calibration information is not supplied. Calibration can easily be changed on-site.